

WHAT IS CLAIMED IS:

1. A shoe sole comprising:

a first sole element; and

5 a second sole element, wherein said first sole element is associated with said second sole element such that when a threshold force is applied to one of said first sole element and said second sole element, said threshold forces causes said first sole element and said second sole element to translate longitudinally relative to each other.

10 2. An athletic shoe comprising:

a body portion;

an upper sole element substantially permanently attached to said body portion; and

a lower sole element releasably attached to said upper sole element such that lateral
relative motion between said upper sole element and said lower sole element is prevented and
15 longitudinal motion between said upper sole element and lower sole element is resisted up to a
predetermined release force.

3. An athletic shoe sole comprising:

an upper sole having a bottom surface including a first longitudinal guiding element;

20 a lower sole having a top surface including a second longitudinal guiding element;

said second longitudinal guiding element engaging said first longitudinal guiding element
and constraining said upper sole to longitudinal motion relative to said lower sole upon exertion
of a threshold longitudinal shear force therebetween.

25 4. The athletic shoe sole according to claim 3 wherein said longitudinal guiding
elements comprise a rail and slot.

5. The athletic shoe sole according to claim 3 comprising:

a breakaway portion extending through said longitudinal guiding elements and preventing
30 longitudinal translation between said upper sole and lower sole unless a force exceeding a
predetermined shear force is exerted therebetween.

6. The athletic shoe sole according to claim 5 wherein said breakaway portion comprises a shear pin.

5 7. The athletic shoe sole according to claim 5 wherein said breakaway portion comprises a controlled friction portion.

8. The athletic shoe sole according to claim 7 wherein said controlled friction portion comprises a plurality of teeth and grooves.

10 9. The athletic shoe sole according to claim 6 wherein said shear pin is formed integrally with said upper or lower sole portion.

15 10. The athletic shoe sole according to claim 5, wherein said breakaway portion comprises at least one spot weld.

11. The athletic shoe sole according to claim 5 wherein said breakaway portion comprises an adhesive layer.

20 12. The athletic shoe sole according to claim 3 comprising a ligament portion connected between said upper sole and said lower sole and preventing longitudinal translation between said upper sole and said lower sole unless a force exceeding a predetermined shear force is exerted therebetween.

25 13. The athletic shoe sole according to claim 5 wherein said ligament portion comprises an elastic band.

14. The athletic shoe sole according to claim 5 wherein said ligament portion comprises a spring.

15. An athletic shoe comprising:

an upper sole having a bottom surface including a first longitudinal guiding portion;

a lower sole having a top surface including a second longitudinal guiding portion adapted for accepting said first longitudinal guiding portion and constraining said upper sole to

5 longitudinal motion relative to said lower sole upon exertion of a threshold longitudinal shear force therebetween; and

a shear pin extending between said upper sole and said lower sole.

16. The athletic shoe according to claim 15 further comprising cleats extending

10 downward from said lower sole.

17. The athletic shoe according to claim 16 wherein at least one cleat includes a shear pin extending upward through said upper and lower sole elements.

15 18. The athletic shoe according to claim 15 further comprising means for preventing translation between said upper sole and said bottom sole.

19. The athletic shoe according to claim 15 wherein said shear pins are replaceable.

20 20. The athletic shoe according to claim 15 wherein said longitudinal guiding portions comprise a rail and slot.